

THE REDISCOVERY AND SYSTEMATIC POSITION OF
ACOLHUA CHAMPIONI DISTANT (HEMIPTERA: LYGAEIDAE)

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Abstract.—*Acolhua championi* previously known from a single mutilated specimen is redescribed and figured from Oaxaca, México. The genus *Acolhua* Distant is redescribed and transferred from the Drymini to the Antillocorini. The cladistic relationships are discussed.

Despite Distant's inclusion of a colored figure of *Acolhua championi* (Distant, 1893, pl. 34, fig. 24), the genus *Acolhua* has remained an enigma since its original description. Distant related it to *Clerada* but since the tribe Cleradini is restricted to the Eastern Hemisphere this has seemed highly improbable. Slater's (1964) Catalogue listed it in the Drymini. It has been known only from the holotype in the British Museum. This specimen as Scudder (1967) correctly notes lacks an abdomen. Since the position of the abdominal spiracles and the number and placement of the trichobothria, the presence or absence of inner laterotergites, the number of dorsal scent gland orifices, as well as details of the genitalia, are essential for assignment to a tribe, it has been impossible to place this genus accurately.

Recently we have been able to examine a series of five specimens of *A. championi* from Oaxaca, México, collected by beating dry leaves of *Cecropia* sp. by E. Barrera. Examination of these specimens makes it possible to determine that *Acolhua* is a member of the Antillocorini and to discuss its cladistic position within this tribe.

This placement of *Acolhua* in the Antillocorini rather than the Drymini confirms Slater's (1986) belief that the tribe Drymini is not represented in the neotropical fauna whereas the Antillocorini constitute a diverse and abundant element there.

Slater (1980) discussed the systematic relationships of the Antillocorini of the Western Hemisphere and presented a preliminary generic cladogram. *Acolhua championi* appears to be most closely related cladistically to the genus *Paradema* Slater and within the genus to *Paradema englemani* Slater. Both of these genera have the sperm reservoir and attendant wings reduced to a minute sclerite attached to the proximal end of the ejaculatory duct which in *Paradema englemani* and *Acolhua championi* is enormously enlarged (see Slater, 1980, figures 16 and 17). These two species are also similar in being the only taxa with such a phallic configuration that have distinctly concave apical corial margins. Both species also

have the sutures between sterna 3-4 and 4-5 almost completely obliterated by the high degree of sternal fusion (Fig. 3); both have numerous elongate upstanding hairs on the dorsal surface of the body and on the antennae and have three distinct rows of claval punctures.

Despite these cladistically noteworthy similarities the two species have many differences that warrant the retention of *Acolhua* as a distinct genus. While both *A. championi* and *P. englemani* have black shining heads, that of *P. englemani* is declivent anteriorly and the eyes are not stalked. *Acolhua* has an almost completely polished shining dorsal and ventral surface, whereas *Paradema englemani* has the pronotum, scutellum, fore wings, propleuron, prosternum, mesopleuron and anterior lobes of the metapleuron pruinose. The metathoracic scent gland auricle of *P. englemani* is not short and rounded as it is in *A. championi* but angles almost straight caudo-laterally, and the evaporative area extends almost to the middle of the metapleuron.

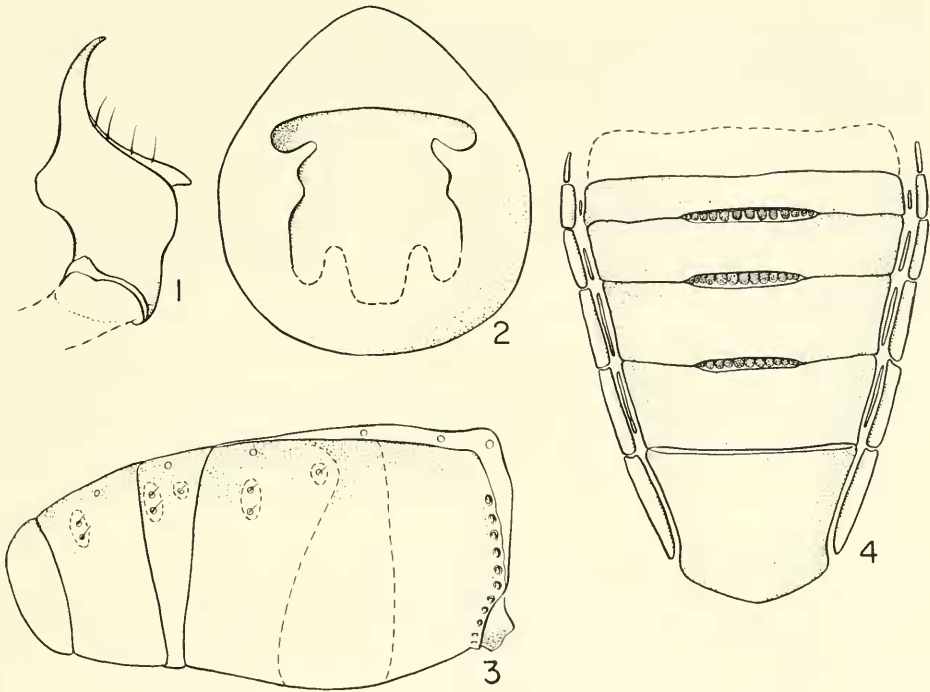
If Slater's (1980) cladogram is correct *Acolhua* is the sister group to *Paradema* and its sister species is *Paradema englemani*. This means that if present nomenclature is retained *Paradema* becomes paraphyletic. This paraphyly could be avoided by elevating *P. englemani* to generic status and as noted above there are synapomorphies that unite *P. englemani* and *Acolhua*. *Acolhua championi* has numerous striking autopomorphies. It is certainly worthy of generic status and except for the synapomorphies noted above is not closely related morphologically to *Paradema englemani*. We do not think it reasonable to combine *P. englemani* with *Acolhua* nor to remove *P. englemani* from *Paradema*. We believe that there is both practical and theoretical value in sometimes retaining paraphyletic taxa and that this is a good example.

All measurements are in millimeters.

Acolhua Distant

Acolhua Distant 1893 p. 394 (see colored figure).

Body above and below polished and shining. Clavus and posterior two-thirds of scutellum contrastingly pruinose. Head non-declivent. Eyes strongly protruding and placed on short but distinct stalks. Pronotum with a narrow anterior collar bounded posteriorly by a row of coarse punctures. Lateral pronotal margins rounded or very faintly calloused, not carinate or explanate. Transverse pronotal impression obsolete. Scutellum lacking a median elevation. Clavus with three distinct rows of punctures of similar size. Apical corial margin deeply concave mesally. Gular trough elongate, tapering to a blunt point posteriorly, extending to level of antenniferous tubercles. Metathoracic scent gland auricle short and rounded, slightly curved caudad. Evaporative area small, extending only slightly beyond auricle, outer margin rounded, covering only ventral one-third of metapleuron and remote from entire posterior margin. Fore femora slender, mutic. Abdomen with well developed equal-sized scent gland scars present between terga three and four, four and five, and five and six (Fig. 4). Inner laterotergites present on terga three through six (Fig. 4). Spiracles of abdominal segments three and four both lying ventrally on sternal shelf (Fig. 3). Anterior segments of abdominal sternum fused so that sutures between sterna three and four and four and five are invisible or at most represented by a very faint impression. Trichobothria of sternum five not linear,



Figs. 1-4. *Acolhua championi*. 1, Paramere. 2, Genital capsule (dorsal view). 3, Abdomen (lateral view). 4, Abdomen (dorsal view).

two posterior trichobothria located one above the other and almost directly below spiracle of segment five (Fig. 3). Sperm reservoir minute with tiny obsolete wings. Ejaculatory duct enormously wide for almost entire length. Paramere (Fig. 1) with short slender blade, broad posterior lobe, a short but acute inner lobe. Genital capsule as in Figure 2.

Type species.—*Acolhua championi* Distant. Monobasic.

Acolhua championi Distant

Acolhua championi Distant 1893, p. 394.

Head, anterior pronotal lobe, central area of posterior pronotal lobe, base of scutellum, meso- and metapleuron and sternum, first antennal segment, distal ends of second and third segments and extreme base of segment four black. Anterior pronotal collar from meson to laterad of ocelli yellow. Dark red brown as follows: lateral and posterior areas of pronotum, scutellum, clavus, posterior two-thirds of corium, abdomen and all femora (sometimes paler yellowish brown on pronotum and clavus). A white macula, formed by the two clavi, present along claval commissure. Basal area of corium to level of middle of clavus white or pale yellow. Membrane hyaline with dark brown streaks and mottled areas and a large white macula present adjacent to apex of corium.

Dorsal surface of body, legs, and antennae bearing numerous elongate upstanding hairs, those on antennae often two or more times as long as diameter of a

segment. Dorsal surface of head deeply rugulose. Pronotum, scutellum, clavus and anterior portion of corium bearing large coarse punctures. Calli smooth. Posterior two-thirds of corium convex and bearing only a few punctures adjacent to distal end of corial furrow.

Tylus attaining distal one-third of first antennal segment. Length head 0.52, width 0.70, interocular space 0.42. Lateral pronotal margins slightly impressed in area of obsolete transverse impression. Humeral angles of pronotum evenly rounded. Posterior pronotal margin evenly convex. Length pronotum 0.58, width 1.0. Length scutellum 0.50, width 0.56. Length claval commissure 0.26. Midline distance apex clavus-apex corium 0.50. Midline distance apex corium-apex membrane 0.40. Length labial segments I 0.28, II 0.26, III 0.26, IV 0.16. Antennal segments one, two and three slender, terete, segment four robustly fusiform. Length antennal segments I 0.24, II 0.46, III 0.36, IV 0.44. Total body length 2.72.

Material examined.—5 males MEXICO: *Oaxaca*, Pluma Hidalgo 1070 S.N.M., 3.VI.1985 (E. Barrera). In Instituto de Biología UNAM, Mexico D. F. and J. A. Slater collections.

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